

RPS



Ayrshire Shoreline Management Plan

Appendix D: Policy & Actions Assessment

IBE1107/D03

Final

July 2018





Ayrshire Shoreline Management Plan

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DOCUMENT CONTROL SHEET

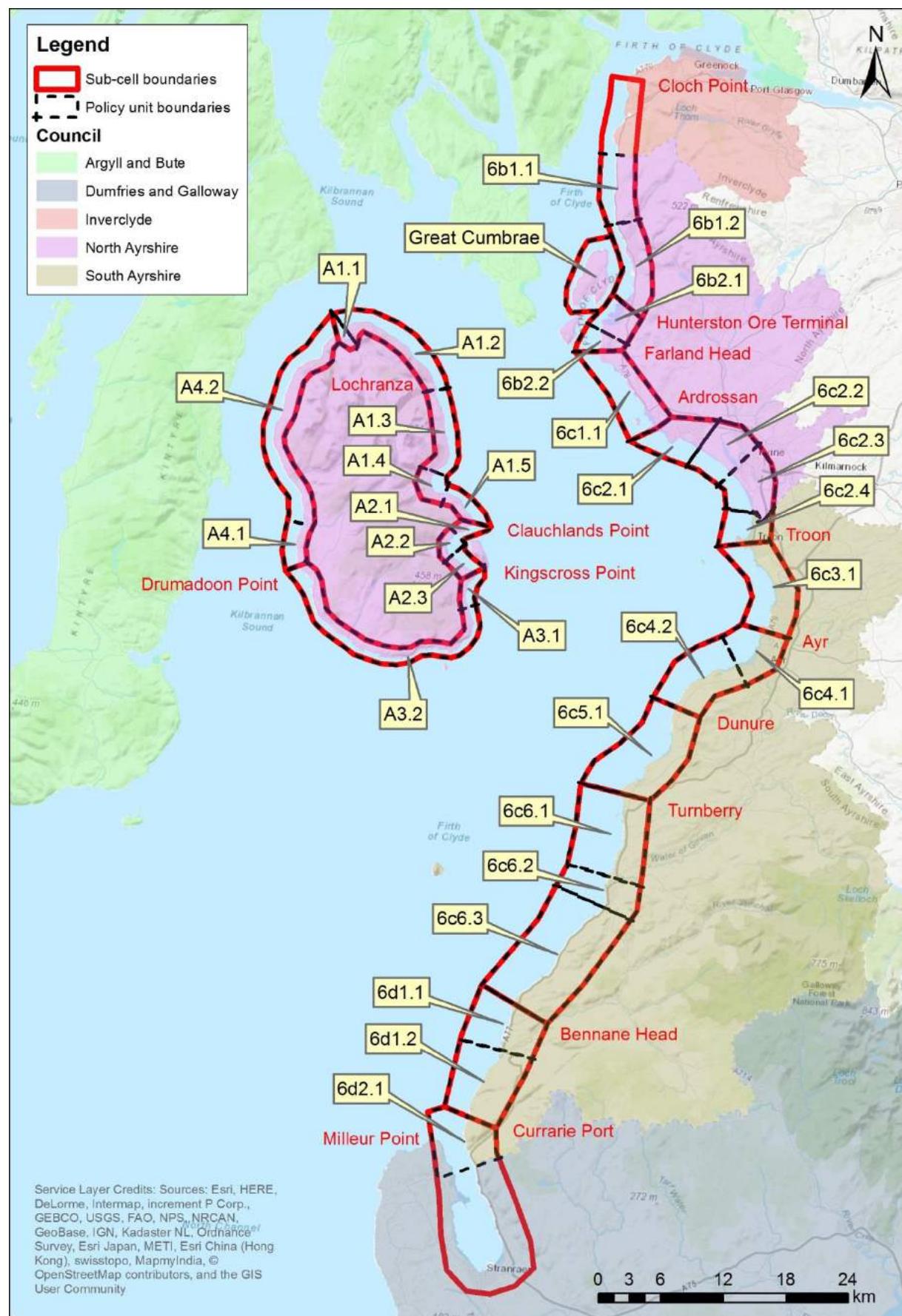
Client	North / South Ayrshire Council					
Project Title	Ayrshire Shoreline Management Plan					
Document Title	Appendix D – Policy & Actions Assessment					
Document No.	IBE1107/D03 – Appendix D					
This Document Comprises	DCS	TOC	Text	List of Tables	List of Figures	No. of Appendices
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Rev.	Status	Author(s)	Reviewed By	Approved By	Office of Origin	Issue Date
D01	Draft	DI	MB	MB	Belfast	23/01/2018
F01	Final	DI	MB	MB	Belfast	27/07/2018

INTRODUCTION

This Appendix presents an overview of the coastal flood and erosion risk within the various Policy Units identified within the Ayrshire SMP study area, and the outcomes of a series of policy workshops undertaken with Planners and Engineers for both North and South Ayrshire Council. In essence this Appendix documents the process by which the recommended policies were decided and records key issues and considerations that influenced the selection of the relevant policy prior to the finalisation of the draft SMP.

AYRSHIRE SMP STUDY AREA EXTENTS



Long List of Potential Actions to achieve Shoreline Management Policies

Potential Actions	Policies action is applicable for				Risks action is applicable for			Construction Type
	Hold the line	Advance the line	Managed realignment	No active intervention	Tidal Flooding	Wave Overtopping	Erosion	
Seawalls	✓	✓	▲		✓	✓	✓	Hard
Revetments	✓	✓	▲			▲	✓	Hard
Embankments	✓	✓	▲		✓	▲		Hard
Maintenance	✓				▲	▲	▲	Mixed
Groynes	✓						✓	Mixed
Detached breakwaters	✓					▲	✓	Mixed
Headlands	✓					▲	✓	Mixed
Perched beaches	✓						✓	Mixed
Cove	✓						✓	Mixed
Dune stabilisation	✓		▲		✓	▲	✓	Soft
Managed realignment			✓		✓	✓	✓	Soft
Nourishment	✓	▲	✓		▲	▲	✓	Soft
Beach drain	✓						✓	Soft

Key	
Applicable	✓
Applicable in some cases	▲
Not applicable	

Definitions of Long List of Potential Actions

Potential Actions	Definition
Seawalls	These are typically of concrete, masonry or gabion construction. They are typically sloped but can also be near-vertical. The face can be smooth, stepped or curved. Seawalls protect against both erosion and flooding.
Revetments	A sloping structure with a facing of typically stone, concrete units or cobble. Revetments protect against erosion; however they do not normally protect against flooding.
Embankments	A sloping sea defence structure of typically earthen/sand construction. These structures protect the coast from flooding; however they do not normally provide erosion protection.
Maintenance	In areas where coastal defences are currently in place, a maintenance regime can ensure that these structures continue to provide the required standard of protection.
Groynes	These are normally straight structures perpendicular to the shoreline. They block part of the littoral drift and trap sand on their upstream side.
Detached breakwaters	These are straight shore-parallel structures which partly provide direct coastal protection as the shoreline in the lee of the structure is sheltered. Littoral transport in the lee of the structure is also reduced, trapping sand.
Headlands	These are smooth structures which extend out on the shoreface from the coastline. They block part of the littoral transport and have similar effects on the shoreline as groynes and detached breakwaters; however some of the disadvantages of groynes and detached breakwaters are minimised such as leeside erosion.
Perched beaches	These are natural or nourished beaches at locations with a steep shoreface where a submerged structure supports the lower part of the beach.
Cove	This is a semi-protected sandy bay. Two curved breakwaters which connect to the shore are used to form a cove.
Dune stabilisation	Dunes are a natural coastal feature formed by sand which blows inland from the beach and is deposited behind the coastline. Dunes act as a flexible buffer zone, moving backwards with an eroding coastline as long as there is space for this to occur. This process protects the hinterland from erosion and flooding. The ability of dunes to recover after a storm event can be affected if the dune vegetation is damaged. Planting marram grass and setting up spruce fascines or similar to trap sand can stabilise the dune encouraging accretion and build up. This needs to be carried out in a sensitive manner, as over-use of this technique may completely stabilise the dune, interrupting the natural cycle of dune initiation and sediment redistribution.
Managed realignment	In areas where significant coastal defence works have been undertaken, relaxing the requirements for fixing the coastline position to allow managed realignment may be feasible. If housing or infrastructure facilities are very close to the coastline this option will only be feasible if these can be abandoned or moved landward. Where managed realignment is implemented, the coast is given back to natural processes, thereby enhancing the environmental and recreational quality of the area. The rate of realignment can be managed by combining this measure with nourishment if required. If implemented successfully, managed realignment can be effective against both erosion and flooding.
Nourishment	This is a very natural way of combating erosion as sediment is added to artificially replace a deficit in the sediment budget. This measure does not remove the cause of erosion, so erosion will continue to occur along the nourished section. Continual maintenance is required as the nourished sand is gradually sacrificed. This measure generally does not prevent flooding, except in the case of dune nourishment which can offer additional flood protection.
Beach drain	In this system a drain is installed running parallel to the beach in the wave up-rush zone. The drain lowers the groundwater table in this localised area. This decreases the strength of the down-rush of the wave and increases the strength of the beach sand, thereby reducing erosion. This measure does not protect against flooding.

Sub-Cell 6b1: Cloch Point - Hunterston Ore Terminal**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion						Wave Max. Significant Wave Height (Hm0)		
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	249	402		0	0	0		0	0	1	<1.0m
RPs AAD (£)	£98,724										
NRPs (no.)	78	138		0	0	2		0	0	2	
NRPs AAD (£)	£201,105										
A Roads (km)	0.837	2.462		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.350	0.468		0.000	0.000	0.025		0.000	0.000	0.062	
Minor Roads (km)	0.129	0.252		0.000	0.046	0.101		0.040	0.020	0.287	
Roads AAD (£)	£14,485										
SSSIs (km ²)	0.275	0.279	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

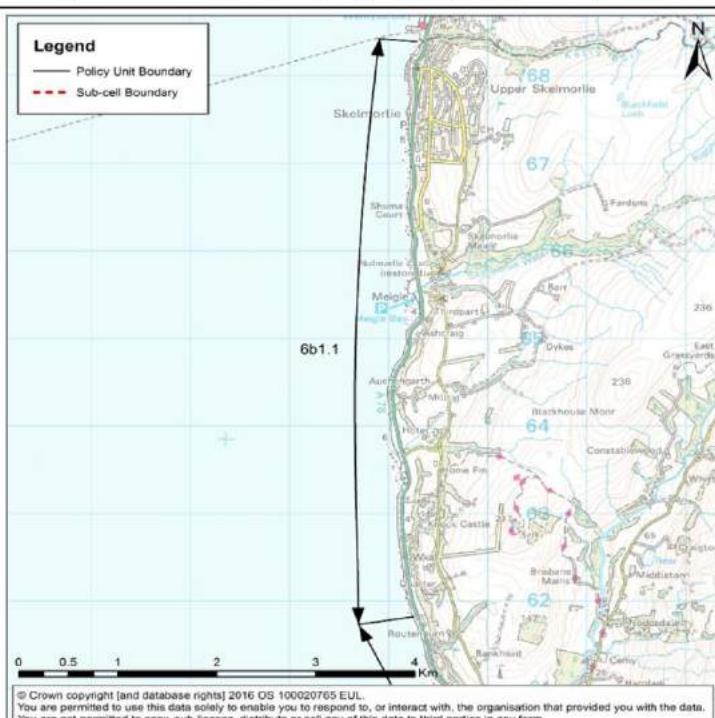
*Note this sub-cell contains assets located within Inverclyde Council, therefore the sum of the policy units may not total the sub-cell value.

Policy Unit 6b1.1: Skelmorlie to Largs**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion						Wave Max. Significant Wave Height (Hm0)		
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	0	0		0	0	0		0	0	0	<1.0m
RPs AAD (£)	£0										
NRPs (no.)	0	0		0	0	0		0	0	0	
NRPs AAD (£)	£0										
A Roads (km)	0.298	0.725		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.000	0.010		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£6,313										
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit 6b1.2: Largs to Hunterston Ore Terminal**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion						Wave Max. Significant Wave Height (Hm0)		
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	249	402		0	0	0		0	0	1	<1.0m
RPs AAD (£)	£98,724										
NRPs (no.)	75	132		0	0	2		0	0	2	
NRPs AAD (£)	£32,858										
A Roads (km)	0.530	1.723		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.350	0.468		0.000	0.000	0.025		0.000	0.000	0.062	
Minor Roads (km)	0.123	0.236		0.000	0.046	0.101		0.040	0.020	0.287	
Roads AAD (£)	£8,154										
SSSIs (km ²)	0.275	0.279	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Subcell		Policy unit	
6b1		6b1.1	
Cloch Point - Hunterston Ore Terminal		Skelmorlie to Largs	
Policy		Hold the line	
Issue			
<p>The A78 road is at risk of coastal flooding. No assets have been identified to be at risk due to coastal erosion in this policy unit, although this may be because the A78 is currently defended and therefore an erosion risk to this asset was not highlighted. The A78 is managed by Transport Scotland. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection
Embankments	✓ Will protect against flooding	Dune stabilisation	✗ No space for dunes
Maintenance	✓ There are existing defences including seawalls, revetments rock armour and groynes.	Managed realignment	✗ Will not hold the existing line
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✗
Workshop Conclusions			
<p>Significant defences are currently in place so maintenance is a potential action. Lack of erosion detected through NCCA likely to be due to coastline being mostly protected already. Realignment of road may not be practical due to the topography. Transport Scotland to manage risk to their assets. Overtopping study may be required by Transport Scotland.</p>			
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>6b1.1</p> <p>0 0.5 1 2 3 4 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>			

Subcell		Policy unit			
6b1		6b1.2			
Clock Point - Hunterston Ore Terminal		Largs to Hunterston Ore Terminal			
Policy		Hold the line			
Issue					
<p>Significant coastal flood risk around the ferry terminal at Largs, the mouth of the Noddsdale Water and Allanton Park Terrace. There are other small pockets of coastal flood risk throughout the policy unit. A number of properties are also at risk due to erosion in the vicinity of Mackerston Place. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓	Will protect against both flooding and erosion	Perched beaches	▲	Will not protect against flooding but may provide erosion protection
Revetments	▲	Will not protect against flooding but may provide erosion protection	Cove	▲	Will not protect against flooding but may provide erosion protection
Embankments	✓	Will protect against flooding	Dune stabilisation	✗	No space for dunes
Maintenance	✓	There are existing defences including seawalls, revetments and rock armour.	Managed realignment	✗	Will not hold the existing line
Groynes	▲	Will not protect against flooding but may provide erosion protection	Nourishment	✓	Potentially feasible in isolated areas
Detached breakwaters	▲	Will not protect against flooding but may provide erosion protection	Beach drain	▲	Will not protect against flooding but may provide erosion protection
Headlands	▲	Will not protect against flooding but may provide erosion protection	Additional Actions	✓	Wave overtopping study recommended
Workshop Conclusions					
<p>Many properties potentially affected from flooding but damages relatively low. Wave overtopping study recommended to consider full risk and determine best action. Overtopping risk particularly evident in Largs based on Local Authority feedback. It was noted that groynes, cove and headlands may not be suitable at Largs due to recreational use of area.</p>					

Sub-Cell 6b2: Hunterston Ore Terminal - Farland Head**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0		
RPs AAD (£)	£0											
NRPs (no.)	1	1		0	0	0		0	0	0		
NRPs AAD (£)	£1,045											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.042	0.056	0.220		0.151	0.047	0.130		
Roads AAD (£)	£0											
SSSIs (km ²)	0.348	0.400	0.000	0.002	0.001	0.003	0.000	0.002	0.001	0.002		

Policy Unit 6b2.1: Hunterston**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0		
RPs AAD (£)	£0											
NRPs (no.)	1	1		0	0	0		0	0	0		
NRPs AAD (£)	£1,045											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.042	0.056	0.220		0.151	0.047	0.130		
Roads AAD (£)	£0											
SSSIs (km ²)	0.264	0.296	0.000	0.002	0.001	0.003	0.000	0.002	0.001	0.002		

Policy Unit 6b2.2: Hunterston to Farland Head**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0		
RPs AAD (£)	£0											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£0											
SSSIs (km ²)	0.084	0.104	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Subcell		Policy unit			
6b2		6b2.1			
Hunterston Ore Terminal - Farland Head		Hunterston			
Policy					
Advance the line					
Issue					
One Non-residential property (NRP) at risk of coastal flooding at Hunterston construction yard. A localised area of minor road is at risk due to coastal erosion close to the power station. The maximum wave height during a force 8 storm was found to be less than 1.0m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection		
Revetments	✓ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection		
Embankments	✓ Will not protect against erosion but may provide flood protection	Dune stabilisation	▲ Will not protect against flooding but may provide erosion protection		
Maintenance	▲ There are existing defences including rock armour revetments. Maintaining the existing defences will not advance the line	Managed realignment	✗ Will not advance the line		
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	▲ May be required in conjunction with hard shoreline reinforcement such as seawalls		
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection		
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✗		
Workshop Conclusions					
Hunterston is a Strategic Site under the National Planning Framework. Policy under the National Policy Framework is to not constrain development in this area. Actions will be the responsibility of the asset owners.					
<img alt="Map of Hunterston area showing coastal features, roads, and policy boundaries. The map includes labels for Farland Point, Hunterston Sands, Power Sta., Gull's Walk Coastal Path, and various roads like 55, 54, 52, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 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1015, 1016, 1017, 1018, 1019, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1097, 1098, 1099, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1116, 1117, 1118, 1119, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1145, 1146, 1147, 1148, 1149, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1155, 1156, 1157, 1158, 1159, 1159, 1160, 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1389, 1390, 1391, 1391, 1392, 1393, 1393, 1394, 1395, 1395, 1396, 1397, 1397, 1398, 1399, 1399, 1400, 1401, 1401, 1402, 1403, 1403, 1404, 1405, 1405, 1406, 1407, 1407, 1408, 1409, 1409, 1410, 1411, 1411, 1412, 1413, 1413, 1414, 1415, 1415, 1416, 1417, 1417, 1418, 1419, 1419, 1420, 1421, 1421, 1422, 1423, 1423, 1424, 1425, 1425, 1426, 1427, 1427, 1428, 1429, 1429, 1430, 1431, 1431, 1432, 1433, 1433, 1434, 1435, 1435, 1436, 1437, 1437, 1438, 1439, 1439, 1440, 1441, 1441, 1442, 1443, 1443, 1444, 1445, 1445, 1446, 1447, 1447, 1448, 1449, 1449, 1450, 1451, 1451, 1452, 1453, 1453, 1454, 1455, 1455, 1456, 1457, 1457, 1458, 1459, 1459, 1460, 1461, 1461, 1462, 1463, 1463, 1464, 1465, 1465, 1466, 1467, 1467, 1468, 1469, 1469, 1470, 1471, 1471, 1472, 1473, 1473, 1474, 1475, 1475, 1476, 1477, 1477, 1478, 1479, 1479, 1480, 1481, 1481, 1482, 1483, 1483, 1484, 1485, 1485, 1486, 1487, 1487, 1488, 1489, 1489, 1490, 1491, 1491, 1492, 1493, 1493, 1494, 1495, 1495, 1496, 1497, 1497, 1498, 1499, 1499, 1500, 1501, 1501, 1502, 1503, 1503, 1504, 1505, 1505, 1506, 1507, 1507, 1508, 1509, 1509, 1510, 1511, 1511, 1512, 1513, 1513, 1514, 1515, 1515, 1516, 1517, 1517, 1518, 1519, 1519, 1520, 1521, 1521, 1522, 1523, 1523, 1524, 1525, 1525, 1526, 1527, 1527, 1528, 1529, 1529, 1530, 1531, 1531, 1532, 1533, 1533, 1534, 1535, 1535, 1536, 1537, 1537, 1538, 1539, 1539, 1540, 1541, 1541, 1542, 1543, 1543, 1544, 1545, 1545, 1546, 1547, 1547, 1548, 1549, 1549, 1550, 1551, 1551, 1552, 1553, 1553, 1554, 1555, 1555, 1556, 1557, 1557, 1558, 1559, 1559, 1560, 1561, 1561, 1562, 1563, 1563, 1564, 1565, 1565, 1566, 1567, 1567, 1568, 1569, 1569, 1570, 1571, 1571, 1572, 1573, 1573, 1574, 1575, 1575, 1576, 1577, 1577, 1578, 1579, 1579, 1580, 1581, 1581, 1582, 1583, 1583, 1584, 1585, 1585, 1586, 1587, 1587, 1588, 1589, 1589, 1590, 1591, 1591, 1592, 1593, 1593, 1594, 1595, 1595, 1596, 1597, 1597, 1598, 1599, 1599, 1600, 1601, 1601, 1602, 1603, 1603, 1604, 1605, 1605,					

Subcell	Policy unit				
6b2	6b2.2				
Hunterston Ore Terminal - Farland Head	Hunterston to Farland Head				
Policy					
Hold the line					
Issue					
<p>No assets have been identified to be at risk due to coastal flooding or erosion in this policy unit. The maximum wave height during a force 8 storm was found to be between 1.0-1.5m.</p>					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✗	No flood or erosion risk identified	Perched beaches	✗	No erosion risk identified
Revetments	✗	No erosion risk identified	Cove	✗	No erosion risk identified
Embankments	✗	No flood risk identified	Dune stabilisation	✗	No flood or erosion risk identified
Maintenance	✓	There are existing defences including rock armour revetments.	Managed realignment	✗	Will not hold the existing line
Groynes	✗	No erosion risk identified	Nourishment	✗	No flood or erosion risk identified
Detached breakwaters	✗	No erosion risk identified	Beach drain	✗	No erosion risk identified
Headlands	✗	No erosion risk identified	Additional Actions	✗	
Workshop Conclusions					
<p>Maintenance of the shoreline will be the responsibility of the asset owners.</p>					
Legend <ul style="list-style-type: none"> — Policy Unit Boundary - - - Sub-cell Boundary 					
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Sub-Cell 6c1: Farland Head - Ardrossan**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	1	326		0	0	0		0	0	0	
RPs AAD (£)	£3,780										
NRPs (no.)	5	75		0	0	0		0	0	0	
NRPs AAD (£)	£4,369										
A Roads (km)	0.000	0.190		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.021	0.414		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.080	1.370		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£572										
SSSIs (km ²)	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Policy Unit 6c1.1 (Farland Head to Ardrossan) is the only policy unit within this sub-cell, therefore the policy unit risk values are equal to the sub-cell risk values.

Subcell		Policy unit		
6c1		6c1.1		
Farland Head - Ardrossan		Farland Head to Ardrossan		
Policy		Hold the line		
Issue				
<p>A number of properties are at risk of coastal flooding in the vicinity of Portencross Castle, along Eglinton Road and at Ardrossan Marina. No assets were found to be at risk due to coastal erosion. Risk to Scottish Water assets. The maximum wave height during a force 8 storm was found to be between 1.5-2.0m. Wave overtopping risk to Ardrossan.</p>				
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?	
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding	
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding	
Embankments	✓ Will protect against flooding	Dune stabilisation	✓ Potentially feasible at Eglinton Road	
Maintenance	✓ There are existing defences including seawalls, revetments, rock armour and dunes	Managed realignment	✗ Will not hold the existing line	
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible at Eglinton Road	
Detached breakwaters	✓ May provide protection to the marina	Beach drain	✗ Will not protect against flooding	
Headlands	✗ Will not protect against flooding	Additional Actions	✓ Wave overtopping study recommended	
Workshop Conclusions				
<p>Planning application currently in for North Bay which could provide 200yr plus climate change standard of protection against coastal flooding. Scottish Water to manage risk to their assets.</p>				

Sub-Cell 6c2: Ardrossan - Troon**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	134	707		0	0	0		0	0	0	
RPs AAD (£)	£71,206										
NRPs (no.)	118	308		0	0	1		0	0	1	
NRPs AAD (£)	£224,240										
A Roads (km)	0.511	0.246		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.746	2.323		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.249	0.881		0.000	0.000	0.000		0.000	0.000	0.273	
Roads Damage (£)	£14,267										
SSSIs (km ²)	1.101	1.253	0.011	0.000	0.000	0.000	0.011	0.000	0.000	0.000	

Policy Unit 6c2.1: Ardrossan to Stevenston**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	13	382		0	0	0		0	0	0	
RPs AAD (£)	£26,167										
NRPs (no.)	1	161		0	0	1		0	0	1	
NRPs AAD (£)	£10,592										
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.000	0.744		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.000	0.515		0.000	0.000	0.000		0.000	0.000	0.273	
Roads Damage (£)	£397										
SSSIs (km ²)	0.062	0.063	0.005	0.000	0.000	0.000	0.005	0.000	0.000	0.000	

Policy Unit 6c2.2: Stevenston to Irvine Bay**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	0	0		0	0	0		0	0	0	
RPs AAD (£)	£0										
NRPs (no.)	3	3		0	0	0		0	0	0	
NRPs AAD (£)	£2,822										
A Roads (km)	0.019	0.477		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.257	0.382		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£1,706										
SSSIs (km ²)	0.829	0.961	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Policy Unit 6c2.3: Irvine Bay to Gailes Burn**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	10	84		0	0	0		0	0	0	
RPs AAD (£)	£6,859										
NRPs (no.)	11	18		0	0	0		0	0	0	
NRPs AAD (£)	£192,426										
A Roads (km)	0.253	0.276		0.000	0.000	0.000		0.000	0.000	0.000	<1.0m
B Roads (km)	0.005	0.031		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£7,307										
SSSIs (km ²)	0.211	0.229	0.006	0.000	0.000	0.000	0.006	0.000	0.000	0.000	

Policy Unit 6c2.4: Gailes Burn to Troon**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	111	241		0	0	0		0	0	0	<1.0m
RPs AAD (£)	£38,181										
NRPs (no.)	103	126		0	0	0		0	0	0	
NRPs AAD (£)	£18,401										
A Roads (km)	0.238	0.246		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.484	1.579		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.249	0.366		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£4,857										
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Subcell		Policy unit			
6c2		6c2.1			
Ardrossan - Troon		Ardrossan to Stevenston			
Policy					
Hold the line					
Issue					
Significant coastal flood risk adjacent at Canal Crescent (Stevenston). Potential flood risk to rail line at Saltcoats. Significant additional coastal flood risk at Saltcoats and Stevenston during climate change scenario. One NRP is at risk due to coastal erosion at Stevenston beach. The maximum wave height during a force 8 storm was found to be less than 1.0m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection		
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection		
Embankments	▲ Will not protect against erosion but may provide flooding protection	Dune stabilisation	✓ Potentially feasible, especially at Stevenston beach		
Maintenance	✓ There are existing defences including seawalls, revetments, rock armour and dunes	Managed realignment	✗ Will not hold the existing line		
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible in isolated areas		
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection		
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✗		
Workshop Conclusions					
Soft engineering action preferred to manage erosion at Stevenston. Actions will be the responsibility of the asset owner. Network Rail to manage risk to their assets.					
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>6c2.1</p> <p>0 0.5 1 2 3 4 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>					

Subcell		Policy unit	
6c2		6c2.2	
Ardrossan - Troon		Stevenston to Irvine Bay	
Policy		Hold the line	
Issue			
Isolated areas of coastal flood risk adjacent to the River Irvine affecting three NRPs. No assets have been identified to be at risk due to coastal erosion, however unknown materials are present along the shoreline and there is potential for contamination if future erosion was to occur. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection
Embankments	▲ Will not protect against erosion but may provide flooding protection	Dune stabilisation	✓ Potentially feasible
Maintenance	✓ There are existing defences including seawalls, revetments, rock armour and dunes	Managed realignment	✗ Will not hold the existing line
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible in isolated areas
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✗
Workshop Conclusions			
Unknown materials are present at the site along this section of shoreline. Potential for contamination, so erosion protection is required.			

Subcell		Policy unit			
6c2		6c2.3			
Ardrossan - Troon		Irvine Bay to Gailes Burn			
Policy					
Hold the line					
Issue					
Significant coastal flood risk adjacent to the River Irvine. No assets were identified as being at risk due to coastal erosion, however Local Authorities indicate there is significant loss of sand dune at Barassie. The maximum wave height during a force 8 storm was found to be less than 1.0m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection		
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection		
Embankments	▲ Will not protect against erosion but may provide flooding protection	Dune stabilisation	✓ Potentially feasible		
Maintenance	✓ There are existing defences including seawalls, revetments, rock armour and dunes	Managed realignment	✗ Will not hold the existing line		
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible in isolated areas		
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection		
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✗		
Workshop Conclusions					
Dune management recommended at Barassie/Irvine beach park to manage erosion. Hard engineering actions may be required along the river Irvine to manage flooding.					
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>0 0.25 0.5 1 1.5 2 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.</p>					

Subcell		Policy unit	
6c2		6c2.4	
Ardrossan - Troon		Gailes Burn to Troon	
Policy		Issue	
Hold the line			
<p>Significant coastal flood risk in the vicinity of Portland St (Troon). No assets have been identified to be at risk due to coastal erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding
Embankments	✓ Will protect against flooding	Dune stabilisation	✓ Potentially feasible
Maintenance	✓ There are existing defences including seawalls, rock armour and dunes	Managed realignment	✗ Will not hold the existing line
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible
Detached breakwaters	✗ Will not protect against flooding	Beach drain	✗ Will not protect against flooding
Headlands	✗ Will not protect against flooding	Additional Actions	✓ Wave overtopping study recommended
Workshop Conclusions			
<p>Seawalls, embankments and maintenance at Troon. Dune stabilisation or maintenance at North Sands, Barassie and Troon North Beach. South Ayrshire Council currently do dune restoration work in the area. Groynes, detached breakwaters or headlands are not socially acceptable at Troon North Beach as these measures would impact upon the recreational use of the beach. Wave overtopping study recommended to assess risk to Portland St.</p>			
<p>Legend</p> <ul style="list-style-type: none"> — Policy Unit Boundary - - - Sub-cell Boundary <p>6c2.4</p> <p>VEHICLE CATAMARAN FROM TROON TO (summer only)</p> <p>Larne 2 hrs</p> <p>0 0.25 0.5 1 1.5 2 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.</p>			

Sub-Cell 6c3: Troon - Ayr**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	317	669		0	0	0		0	0	0	<1.0m	
RPs AAD (£)	£114,471											
NRPs (no.)	264	375		0	0	0		0	0	0		
NRPs AAD (£)	£60,772											
A Roads (km)	0.298	0.299		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.230	0.989		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.240	0.340		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£2,345											
SSSIs (km ²)	0.041	0.067	0.008	0.000	0.000	0.000	0.008	0.000	0.000	0.000		

Policy Unit 6c3.1 (Troon to Ayr) is the only policy unit within this sub-cell, therefore the policy unit risk values are equal to the sub-cell risk values.

Subcell		Policy unit			
6c3		6c3.1			
Troon - Ayr		Troon to Ayr			
Policy					
Hold the line					
Issue					
Significant coastal flood risk around West Portland St (Troon), Prestwick beach and York St (Ayr). Erosion at Newton shore, area of fill material needs protected. Scottish Water rising main runs along the shore and needs protected or moved. Local Authorities have indicated Titchfield Road ad adjacent property gardens have flooded in the past due to wave overtopping. The maximum wave height during a force 8 storm was found to be less than 1.0m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓	Will protect against flooding and erosion	Perched beaches	▲	Will not protect against flooding but may provide erosion protection
Revetments	✓	Will protect against erosion	Cove	▲	Will not protect against flooding but may provide erosion protection
Embankments	✓	Will protect against flooding	Dune stabilisation	✗	Properties at risk either have no space for dunes or have existing seawall defences in front of them
Maintenance	✓	There are existing defences including seawalls, revetments, rock armour and dunes	Managed realignment	✗	Will not hold the existing line
Groynes	▲	Will not protect against flooding but may provide erosion protection	Nourishment	✓	Potentially feasible to protect the SW asset
Detached breakwaters	▲	Will not protect against flooding but may provide erosion protection	Beach drain	▲	Will not protect against flooding but may provide erosion protection
Headlands	▲	Will not protect against flooding but may provide erosion protection	Additional Actions	✓	Wave overtopping study recommended
Workshop Conclusions					
Revetments a potential option to protect against erosion at Newton shore. Scottish Water to manage risk to their asset and could consider nourishment as a potential option. Wave overtopping study including Titchfield Road recommended.					

Sub-Cell 6c4: Ayr - Dunure**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	173	575		0	0	0		0	0	0		
RPs AAD (£)	£143,844											
NRPs (no.)	26	59		0	0	0		0	0	0		
NRPs AAD (£)	£27,936											
A Roads (km)	0.397	0.496		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.101		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.203	1.010		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£8,209											
SSSIs (km ²)	0.062	0.070	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000		

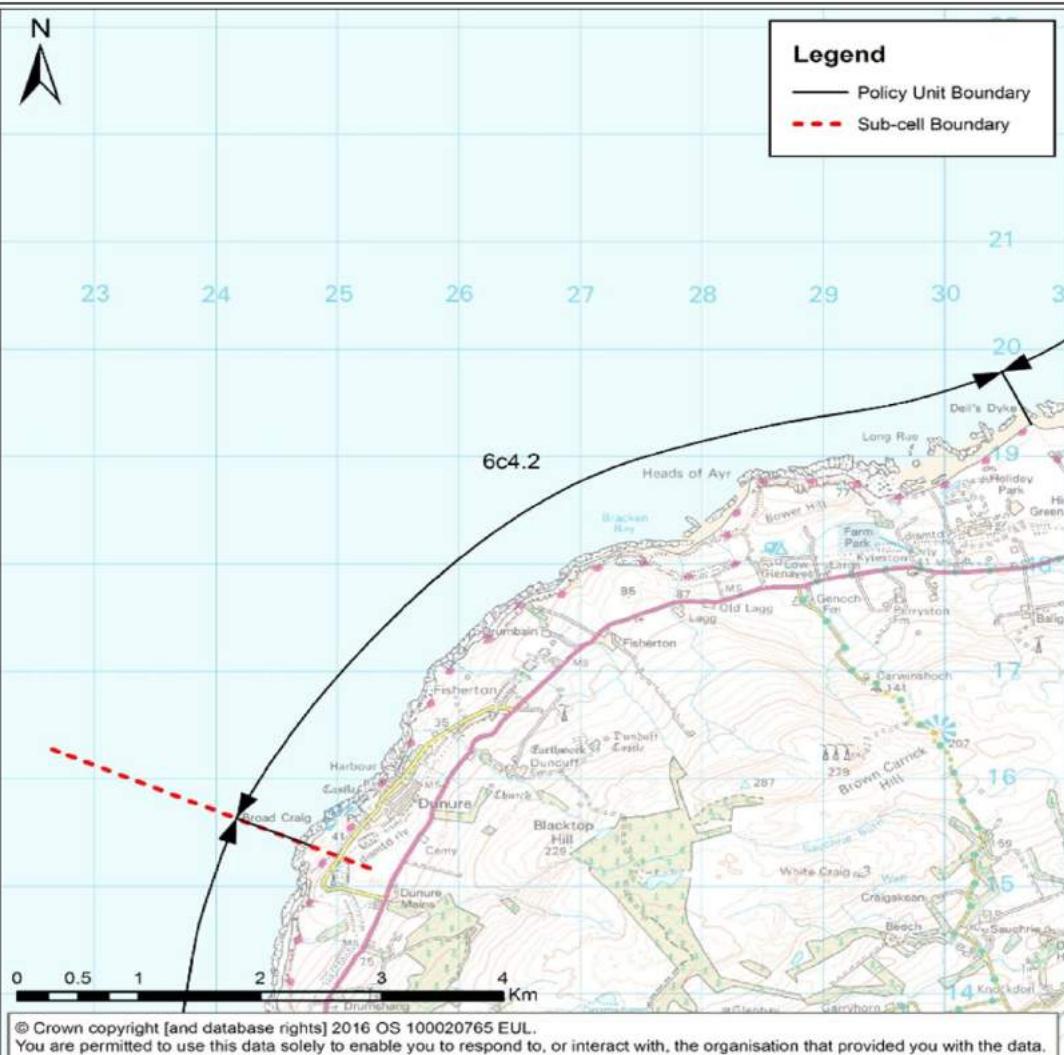
Policy Unit 6c4.1: Ayr to Greenan Castle**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	173	575		0	0	0		0	0	0		
RPs AAD (£)	£143,844											
NRPs (no.)	24	57		0	0	0		0	0	0		
NRPs AAD (£)	£14,353											
A Roads (km)	0.397	0.496		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.101		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.203	1.010		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£8,209											
SSSIs (km ²)	0.013	0.014	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000		

Policy Unit 6c4.2: Greenan Castle to Dunure**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0		
RPs AAD (£)	£0											
NRPs (no.)	2	2		0	0	0		0	0	0		
NRPs AAD (£)	£13,583											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£0											
SSSIs (km ²)	0.049	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

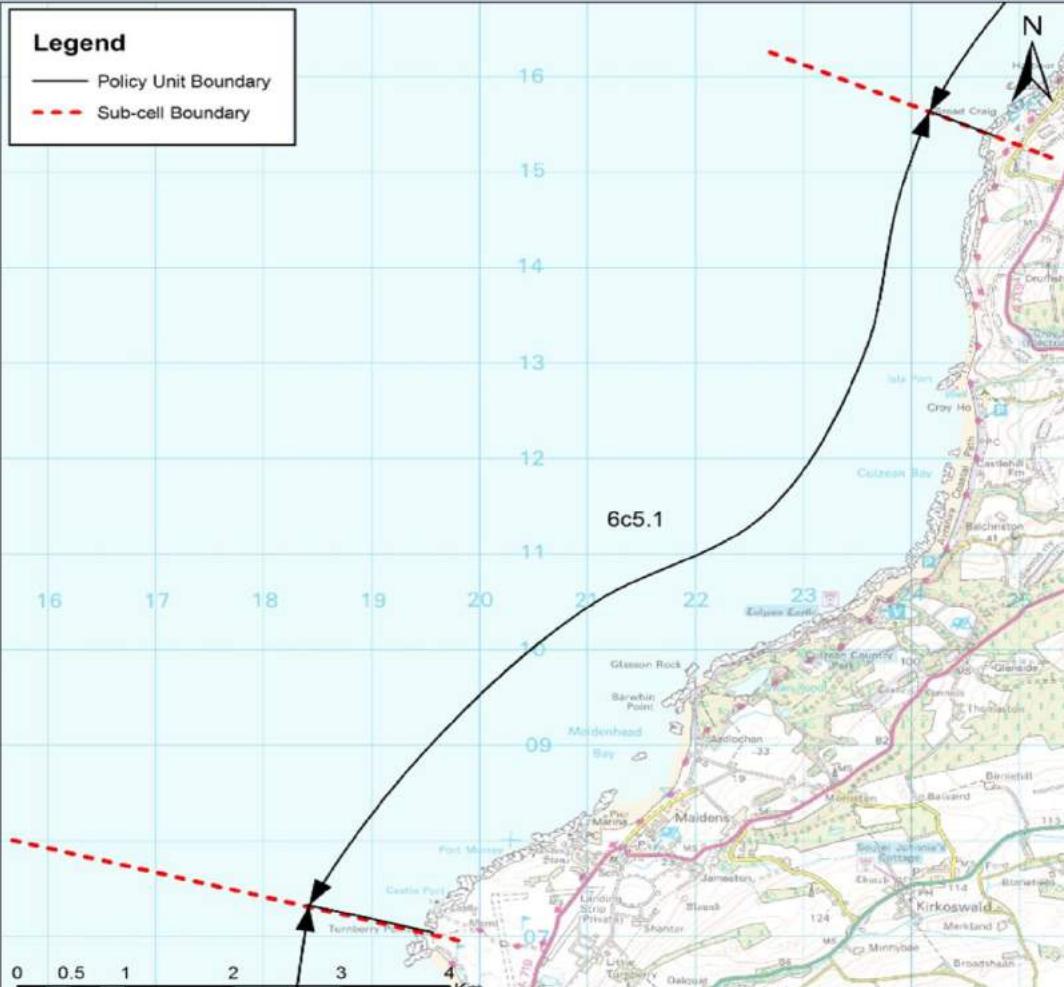
Subcell		Policy unit			
6c4		6c4.1			
Ayr - Dunure		Ayr to Greenan Castle			
Policy					
Hold the line					
Issue					
Significant coastal flood risk at River St (Ayr), Westfield Rd/Clarke Avenue/Arrol Dr (Seafield) and Gearholm Rd/Goukscroft Park (Doonfoot). No assets have been identified to be at risk due to erosion. The maximum wave height during a force 8 storm was found to be less than 1.0m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding		
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding		
Embankments	✓ Will protect against flooding	Dune stabilisation	✓ Potentially feasible at Seafield		
Maintenance	✓ There are existing defences including seawalls, revetments, rock armour, dunes and the south pier.	Managed realignment	✗ Will not hold the existing line		
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible at Seafield		
Detached breakwaters	✗ Will not protect against flooding	Beach drain	✗ Will not protect against flooding		
Headlands	✗ Will not protect against flooding	Additional Actions	✓ Wave overtopping study recommended		
Workshop Conclusions					
Maintenance of the South Pier was suggested due to its importance in maintaining the port at Ayr. A wave overtopping study along the promenade at south Ayr town was recommended. The policy unit boundary was adjusted to include Greenan Castle within the hold the line policy.					

Subcell	Policy unit			
6c4	6c4.2			
Ayr - Dunure	Greenan Castle to Dunure			
Policy				
No active intervention				
Issue				
Two NRPs at coastal flood risk at Dunure. No assets have been identified to be at risk due to erosion. The maximum wave height during a force 8 storm was found to be between 1.5-2.0m.				
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?	
Seawalls	✗ N/A	Perched beaches	✗ N/A	
Revetments	✗ N/A	Cove	✗ N/A	
Embankments	✗ N/A	Dune stabilisation	✗ N/A	
Maintenance	✗ N/A	Managed realignment	✗ N/A	
Groynes	✗ N/A	Nourishment	✗ N/A	
Detached breakwaters	✗ N/A	Beach drain	✗ N/A	
Headlands	✗ N/A	Additional Actions	✗	
Workshop Conclusions				
The policy was agreed with no amendments. No active intervention				
				

Sub-Cell 6c5: Dunure - Turnberry**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	1	1		0	0	0		0	0	0		
RPs AAD (£)	£7,785											
NRPs (no.)	2	5		0	0	0		0	0	0		
NRPs AAD (£)	£1,143											
A Roads (km)	0.000	0.015		0.000	0.000	0.000		0.000	0.000	0.000	1.5-2.0m	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.014	0.093		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£225											
SSSIs (km ²)	0.056	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit 6c5.1 (Dunure to Turnberry) is the only policy unit within this sub-cell, therefore the policy unit risk values are equal to the sub-cell risk values.

Subcell	Policy unit			
6c5	6c5.1			
Dunure - Turnberry	Dunure to Turnberry			
Policy				
No active intervention				
Issue				
Isolated areas of coastal flood risk have been identified at Maidenhead Bay and Turnberry lighthouse. The maximum wave height during a force 8 storm was found to be between 1.5-2.0m.				
Potential Actions	Technically feasible?			
Seawalls	✗	N/A		
Revetments	✗	N/A		
Embankments	✗	N/A		
Maintenance	✗	N/A		
Groynes	✗	N/A		
Detached breakwaters	✗	N/A		
Headlands	✗	N/A		
Perched beaches	✗	N/A		
Cove	✗	N/A		
Dune stabilisation	✗	N/A		
Managed realignment	✗	N/A		
Nourishment	✗	N/A		
Beach drain	✗	N/A		
Additional Actions	✗			
Workshop Conclusions				
The policy was agreed with no amendments. This section of coastline is potentially important as a sediment source.				
				
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Sub-Cell 6c6: Turnberry - Bennane Head**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	8	15		0	0	0		0	0	0		
RPs AAD (£)	£9,190											
NRPs (no.)	13	22		0	0	0		0	0	0		
NRPs AAD (£)	£4,153											
A Roads (km)	0.240	0.473		0.000	0.051	0.115		0.048	0.021	0.101	1.5-2.0m	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.088	0.192		0.000	0.000	0.107		0.030	0.011	0.073		
Roads AAD (£)	£6,257											
SSSIs (km ²)	0.268	0.292	0.002	0.001	0.001	0.003	0.002	0.001	0.001	0.003		

Policy Unit 6c6.1: Turnberry to North Girvan**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	1	2		0	0	0		0	0	0		
RPs AAD (£)	£692											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.020	0.020		0.000	0.000	0.000		0.000	0.000	0.000	1.5-2.0m	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£705											
SSSIs (km ²)	0.059	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

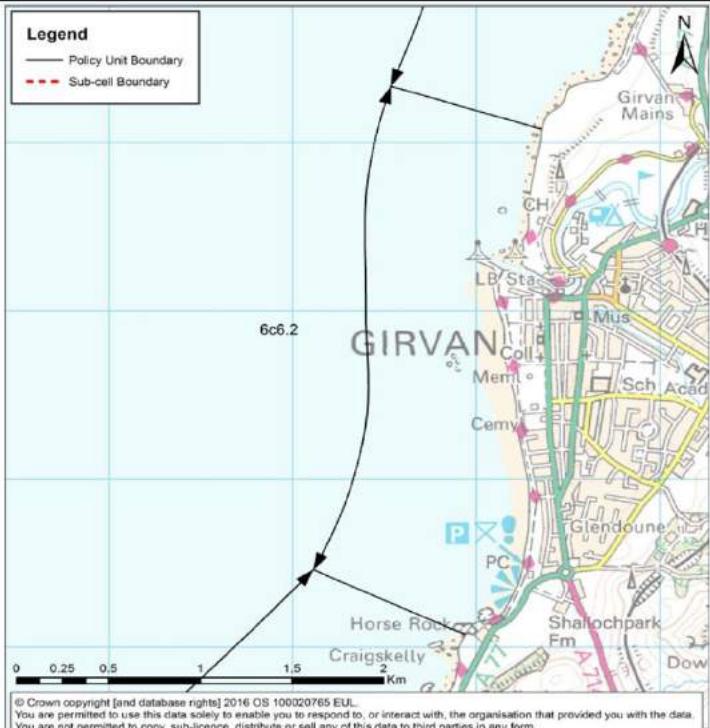
Policy Unit 6c6.2: Girvan**RISKS**

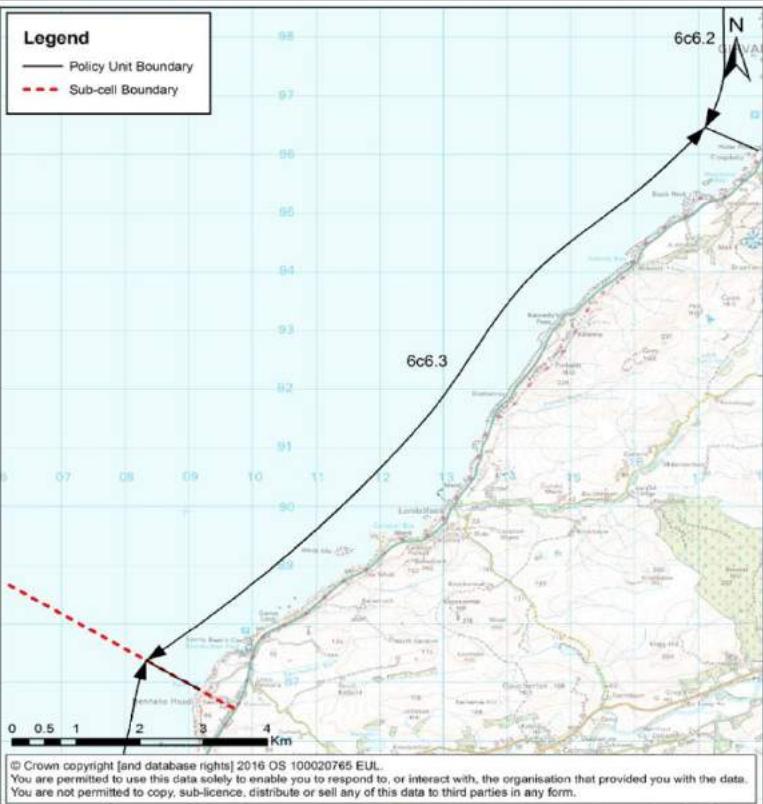
Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	7	13		0	0	0		0	0	0		
RPs AAD (£)	£8,498											
NRPs (no.)	13	21		0	0	0		0	0	0		
NRPs AAD (£)	£4,153											
A Roads (km)	0.034	0.119		0.000	0.000	0.000		0.000	0.000	0.000	<1.0m	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.088	0.191		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£1,184											
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit 6c6.3: South Girvan to Bennane Head**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0	<1.0m	
RPs AAD (£)	£0											
NRPs (no.)	0	1		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.186	0.334		0.000	0.051	0.115		0.048	0.021	0.101		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.001		0.000	0.000	0.107		0.030	0.011	0.073		
Roads AAD (£)	£4,368											
SSSIs (km ²)	0.209	0.225	0.002	0.001	0.001	0.003	0.002	0.001	0.001	0.003		

Subcell		Policy unit			
6c6		6c6.1			
Turnberry - Bennane Head		Turnberry to North Girvan			
Policy					
No active intervention					
Issue					
Isolated coastal flood risk identified to a single residential property (RP) at Dipple. There is potential for erosion of agricultural land but risk is low. The maximum wave height during a force 8 storm was found to be between 1.5-2.0m.					
Potential Actions	Technically feasible?		Potential Actions		
Seawalls	✗	N/A	Perched beaches	✗	N/A
Revetments	✗	N/A	Cove	✗	N/A
Embankments	✗	N/A	Dune stabilisation	✗	N/A
Maintenance	✗	N/A	Managed realignment	✗	N/A
Groyne	✗	N/A	Nourishment	✗	N/A
Detached breakwaters	✗	N/A	Beach drain	✗	N/A
Headlands	✗	N/A	Additional Actions	✗	
Workshop Conclusions					
The policy was agreed with no amendments. This section of coastline is potentially important as a sediment source.					
Legend <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary 	 <p>6c6.1</p>	N			
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Subcell		Policy unit					
6c6		6c6.2					
Turnberry - Bennane Head		Girvan					
Policy							
Hold the line							
Issue							
Significant coastal flood risk adjacent to the Water of Girvan and A77. Significant joint fluvial and coastal flood risk with the Water of Girvan and Mill Burn. Erosion risk at Girvan golf course. The maximum wave height during a force 8 storm was found to be less than 1.0m.							
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?				
Seawalls	✓ Will protect against flooding	Perched beaches	▲ Will not protect against flooding but may provide erosion protection				
Revetments	✓ Will protect against erosion	Cove	▲ Will not protect against flooding but may provide erosion protection				
Embankments	✓ Will protect against flooding	Dune stabilisation	✓ Potentially feasible at Girvan golf club				
Maintenance	✓ There are existing defences including harbour walls, seawalls, revetments and rock armour	Managed realignment	✗ Will not hold the existing line				
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible at Girvan golf club				
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection				
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✓ Flood study at Girvan golf course				
Workshop Conclusions							
Girvan golf course erosion may be partially protected by golf club intervention but may require more formal protection to hold the line. Water of Girvan harbour regularly needs dredged due to sedimentation. Potential to use dredged material for nourishment.							
							

Subcell		Policy unit							
6c6		6c6.3							
Turnberry - Bennane Head		South Girvan to Bennane Head							
Policy									
Hold the line									
Issue									
Isolated areas of the A77 were found to be at risk of coastal flooding. The A77 at Woodland Bay Hotel was also found to be at risk due to erosion. The A77 is managed by Transport Scotland. The maximum wave height during a force 8 storm was found to be less than 1.0m.									
Potential Actions	Technically feasible?		Potential Actions	Technically feasible?					
Seawalls	✓	Will protect against flooding and erosion	Perched beaches	▲	Will not protect against flooding but may provide erosion protection				
Revetments	▲	Will not protect against flooding but may provide erosion protection	Cove	▲	Will not protect against flooding but may provide erosion protection				
Embankments	✓	Will protect against flooding	Dune stabilisation	✗	Not suitable for this policy unit.				
Maintenance	✓	The A77 is mostly defended currently	Managed realignment	▲	Potentially feasible if the road can be diverted				
Groynes	▲	Will not protect against flooding but may provide erosion protection	Nourishment	▲	Potentially feasible				
Detached breakwaters	▲	Will not protect against flooding but may provide erosion protection	Beach drain	▲	Will not protect against flooding but may provide erosion protection				
Headlands	▲	Will not protect against flooding but may provide erosion protection	Additional Actions	✗					
Workshop Conclusions									
Significant defences are currently in place so maintenance is a potential action. Managed realignment is also a potential option if the road can be diverted. Transport Scotland to manage risk to their asset.									
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>6c6.2</p> <p>6c6.3</p> <p>N</p> <p>0 0.5 1 2 3 4 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>									

Sub-Cell 6d1: Bennane Head - Currie Port**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	1	1.5-2.0m	
RPs AAD (£)	£0											
NRPs (no.)	1	1		0	0	0		0	0	0		
NRPs AAD (£)	£1,045											
A Roads (km)	0.035	0.047		0.000	0.000	0.477		0.000	0.035	0.531		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.026		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£1,133											
SSSIs (km ²)	0.202	0.216	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000		

Policy Unit 6d1.1: Bennane Head to Ballantrae**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	1	1.0-1.5m	
RPs AAD (£)	£0											
NRPs (no.)	1	1		0	0	0		0	0	0		
NRPs AAD (£)	£1,045											
A Roads (km)	0.035	0.047		0.000	0.000	0.477		0.000	0.035	0.531		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£1,133											
SSSIs (km ²)	0.038	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit 6d1.2: South Ballantrae to Currie Port**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0	1.5-2.0m	
RPs AAD (£)	£0											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.026		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£0											
SSSIs (km ²)	0.164	0.173	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000		

Subcell		Policy unit	
6d1		6d1.1	
Bennane Head - Currie Port		Bennane Head to Ballantrae	
Policy		Hold the line	
Issue			
Isolated area of coastal flood risk affecting one NRP and the A77 to the southern extent of Ballantrae. A significant section of the A77 was found to be at risk due to coastal erosion north of Ballantrae. The A77 is managed by Transport Scotland. The maximum wave height during a force 8 storm was found to be between 1.0-1.5m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Potentially feasible for the isolated area of flooding or to protect the A77 against erosion	Perched beaches	✓ Potentially feasible to protect the A77 against erosion
Revetments	✓ Potentially feasible to protect the A77 against erosion	Cove	✓ Potentially feasible to protect the A77 against erosion
Embankments	✓ Potentially feasible for the isolated area of flooding	Dune stabilisation	✓ Potentially feasible to protect the A77 against erosion
Maintenance	✓ There are existing defences including seawalls and rock armour	Managed realignment	▲ Potentially feasible if the road can be diverted
Groynes	✓ Potentially feasible to protect the A77 against erosion	Nourishment	✓ Potentially feasible to protect the A77 against erosion
Detached breakwaters	✓ Potentially feasible to protect the A77 against erosion	Beach drain	✓ Potentially feasible to protect the A77 against erosion
Headlands	✓ Potentially feasible to protect the A77 against erosion	Additional Actions	✗
Workshop Conclusions			
Significant defences are currently in place so maintenance is a potential action. Managed realignment is also a potential option if the road can be diverted. Transport Scotland to manage risk to their asset.			
Legend Policy Unit Boundary Sub-cell Boundary	 <p>6d1.1</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EU. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.</p>		

Subcell	Policy unit
6d1	6d1.2
Bennane Head - Currie Port	South Ballantrae to Currie Port
Policy	
No active intervention	
Issue	
<p>No assets have been identified to be at risk due to coastal flooding or erosion in this policy unit. The maximum wave height during a force 8 storm was found to be between 1.5-2.0m.</p>	
Potential Actions	Technically feasible?
Seawalls	✗ N/A
Revetments	✗ N/A
Embankments	✗ N/A
Maintenance	✗ N/A
Groyne	✗ N/A
Detached breakwaters	✗ N/A
Headlands	✗ N/A
Perched beaches	✗ N/A
Cove	✗ N/A
Dune stabilisation	✗ N/A
Managed realignment	✗ N/A
Nourishment	✗ N/A
Beach drain	✗ N/A
Additional Actions	✗
Workshop Conclusions	
<p>The policy was agreed with no amendments. No active intervention.</p>	
Legend <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary 	

Sub-Cell 6d2: Currie Port - Milleur Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	137	257		0	0	0		0	0	0	1.5-2.0m	
RPs AAD (£)	£137,081											
NRPs (no.)	30	41		0	0	0		0	0	0		
NRPs AAD (£)	£39,911											
A Roads (km)	5.726	7.372		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.112	0.239		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£145,400											
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

*Note this sub-cell contains assets located within Dumfries & Galloway Council, therefore the sum of the policy units may not total the sub-cell value.

Policy Unit 6d2.1: Currie Port to Galloway Burn**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0	1.5-2.0m	
RPs AAD (£)	£0											
NRPs (no.)	1	1		0	0	0		0	0	0		
NRPs AAD (£)	£1,045											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£5											
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Subcell		Policy unit			
6d2		6d2.1			
Currie Port - Milleur Point		Currie Port to Galloway Burn			
Policy					
No active intervention					
Issue					
Isolated area of coastal flood risk at Finnarts Bay. No assets have been identified to be at risk due to erosion. The maximum wave height during a force 8 storm was found to be between 1.5-2.0m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✗ N/A	Perched beaches	✗ N/A		
Revetments	✗ N/A	Cove	✗ N/A		
Embankments	✗ N/A	Dune stabilisation	✗ N/A		
Maintenance	✗ N/A	Managed realignment	✗ N/A		
Groynes	✗ N/A	Nourishment	✗ N/A		
Detached breakwaters	✗ N/A	Beach drain	✗ N/A		
Headlands	✗ N/A	Additional Actions	✗		
Workshop Conclusions					
The policy was agreed with no amendments. No active intervention. NRP at Finnarts Bay is abandoned.					
 <p>6d2.1</p>	 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.</p>				

Sub-Cell A1: Lochranza - Clauchlands Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	17	48		0	0	0		0	0	1	<1.0m	
RPs AAD (£)	£16,628											
NRPs (no.)	22	30		0	1	2		0	1	4		
NRPs AAD (£)	£24,444											
A Roads (km)	1.918	4.011		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£39,471											
SSSIs (km ²)	0.096	0.111	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A1.1: Lochranza**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	6	8		0	0	0		0	0	0	<1.0m	
RPs AAD (£)	£1,569											
NRPs (no.)	3	4		0	0	0		0	0	0		
NRPs AAD (£)	£4,415											
A Roads (km)	0.404	0.952		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£7,924											
SSSIs (km ²)	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A1.2: Lochranza to Sannox**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0	<1.0m	
RPs AAD (£)	£0											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£0											
SSSIs (km ²)	0.015	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A1.3: Sannox to Brodick**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	2	3		0	0	0		0	0	0		
RPs AAD (£)	£7,805											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.578	1.572		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£10,354											
SSSIs (km ²)	0.027	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A1.4: Brodick**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	9	37		0	0	0		0	0	1		
RPs AAD (£)	£7,254											
NRPs (no.)	19	26		0	1	2		0	1	4		
NRPs AAD (£)	£20,029											
A Roads (km)	0.936	1.487		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£21,193											
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A1.5: Brodick to Clauchlands Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0		
RPs AAD (£)	£0											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£0											
SSSIs (km ²)	0.053	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Subcell	Policy unit			
A1	A1.1			
Lochranza - Clauchlands Point	Lochranza			
Policy				
Hold the line				
Issue				
<p>Significant area of flood risk around Newton Road affecting residential and non-residential properties. A significant section of the A841 is at risk of coastal flooding. Fluvial, pluvial and groundwater flooding risk present also. No assets were found to be at risk due to coastal erosion. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>				
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?	
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding	
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding	
Embankments	✓ Will protect against flooding	Dune stabilisation	✗ No naturally occurring dunes	
Maintenance	✓ There are existing defences including seawalls, revetments and rock armour	Managed realignment	✗ Will not hold the existing line	
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible	
Detached breakwaters	✗ Will not protect against flooding	Beach drain	✗ Will not protect against flooding	
Headlands	✗ Will not protect against flooding	Additional Actions	✓ Integrated flood study recommended	
Workshop Conclusions				
<p>Significant flood risk from multiple sources. Recommended to carry out further local study considering all sources of flooding to establish suitable flood risk management actions.</p>				
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Subcell		Policy unit	
A1		A1.2	
Lochranza - Clauchlands Point		Lochranza to Sannox	
Policy			
No active intervention			
Issue			
No assets were found to be at risk due to coastal flooding or erosion. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions		Technically feasible?	
Seawalls	✗ N/A	Perched beaches	✗ N/A
Revetments	✗ N/A	Cove	✗ N/A
Embankments	✗ N/A	Dune stabilisation	✗ N/A
Maintenance	✗ N/A	Managed realignment	✗ N/A
Groynes	✗ N/A	Nourishment	✗ N/A
Detached breakwaters	✗ N/A	Beach drain	✗ N/A
Headlands	✗ N/A	Additional Actions	✗

Workshop Conclusions

The policy was agreed with no amendments. No active intervention.

Legend

- Policy Unit Boundary
- - - Sub-cell Boundary

A1.2

Subcell		Policy unit	
A1		A1.3	
Lochranza - Clauchlands Point		Sannox to Brodick	
Policy		Hold the line	
Issue			
Isolated coastal flood risk affecting two residential properties at Sannox Bay. Isolated sections of the A841 were also found to be at risk of coastal flooding. The A841 is maintained by NAC. No assets were found to be at risk due to coastal erosion. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding
Embankments	✓ Will protect against flooding	Dune stabilisation	✓ Potentially feasible
Maintenance	✓ There are existing defences including seawalls, revetments and rock armour	Managed realignment	▲ May consider diverting road
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible
Detached breakwaters	✗ Will not protect against flooding	Beach drain	✗ Will not protect against flooding
Headlands	✗ Will not protect against flooding	Additional Actions	✗
Workshop Conclusions			
Flood and erosion risk to the road. Existing defences in place so maintenance is preferred. Actions will be the responsibility of NAC.			
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary (Solid Black Line) Sub-cell Boundary (Dashed Red Line) <p>A1.3</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.</p>			

Subcell		Policy unit	
A1		A1.4	
Lochranza - Clauclands Point		Brodick	
Policy		Hold the line	
Issue			
Significant coastal flood risk is the vicinity of the bowling green, with other isolated areas of flood risk along the A841. The A841 road is at significant coastal flood risk. The A841 is maintained by NAC. A significant number of properties are at risk due to coastal erosion also. A landfill site to the south of the policy unit is at risk of erosion and requires protection. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not advance the line but may be used in conjunction with other measures
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not advance the line but may be used in conjunction with other measures
Embankments	▲ Will not protect against erosion but may provide flood protection	Dune stabilisation	▲ Potentially feasible
Maintenance	▲ There are existing defences including seawalls, rock armour revetments, a rock groyne and sand bags. Maintaining the existing defences will not advance the line	Managed realignment	✗ Will not advance the line
Groynes	▲ Will not advance the line but may be used in conjunction with other measures	Nourishment	▲ May be required in conjunction with hard shoreline reinforcement such as seawalls
Detached breakwaters	▲ Will not advance the line but may be used in conjunction with other measures	Beach drain	✗ Will not advance the line
Headlands	▲ Will not advance the line but may be used in conjunction with other measures	Additional Actions	▲ Remove landfill material. Wave overtopping study recommended.
Workshop Conclusions			
The policy agreed is hold the line. Recommended to protect landfill site at southern extent against erosion. Potential option to remove landfill was also suggested. Wave overtopping study recommended.			
<p>The map shows the Brodick Bay area with the A1.4 road running along the coastline. Key locations labeled include Brodick Castle and Country Park, Old Quay, Cladach, Home Fm, Strabane, Mus, CHP, Pier, Hotel, Mayish, and Strathwhillan. The map also shows the Brodick Bay area and the landfill site. A legend indicates the Policy Unit Boundary (solid line) and Sub-cell Boundary (dashed line). A north arrow is also present.</p>			

Subcell	Policy unit			
A1	A1.5			
Lochranza - Clauchlands Point	Brodick to Clauchlands Point			
Policy				
No active intervention				
Issue				
<p>No assets have been identified to be at risk due to coastal flooding or erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>				
Potential Actions	Technically feasible?			
Seawalls	✗	N/A		
Revetments	✗	N/A		
Embankments	✗	N/A		
Maintenance	✗	N/A		
Groynes	✗	N/A		
Detached breakwaters	✗	N/A		
Headlands	✗	N/A		
Perched beaches	✗	N/A		
Cove	✗	N/A		
Dune stabilisation	✗	N/A		
Managed realignment	✗	N/A		
Nourishment	✗	N/A		
Beach drain	✗	N/A		
Additional Actions	✗			
Workshop Conclusions				
<p>The policy was agreed with no amendments. No active intervention.</p>				
<p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>N</p> <p>A1.5</p> <p>0 0.25 0.5 1 1.5 2 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.</p>				

Sub-Cell A2: Clauchlands Point - Kingscross Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	21	38		0	0	4		0	1	5	<1.0m	
RPs AAD (£)	£94,306											
NRPs (no.)	7	14		0	0	0		0	0	0		
NRPs AAD (£)	£8,501											
A Roads (km)	0.278	0.579		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.733	1.218		0.000	0.000	0.128		0.000	0.000	0.210		
Roads AAD (£)	£12,552											
SSSIs (km ²)	0.012	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A2.1: Clauchlands Point to Lamlash**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0	<1.0m	
RPs AAD (£)	£0											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.121	0.406		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£919											
SSSIs (km ²)	0.012	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

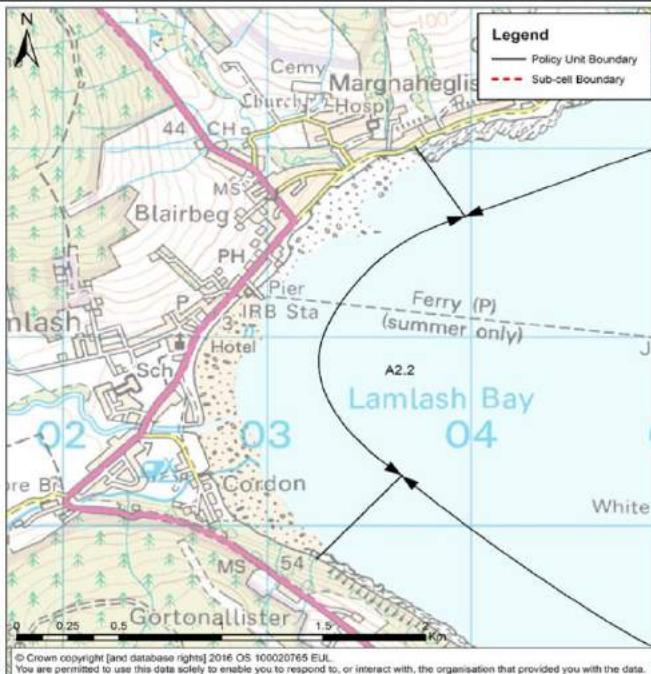
Policy Unit A2.2: Lamlash**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	21	38		0	0	4		0	1	5	<1.0m	
RPs AAD (£)	£94,306											
NRPs (no.)	7	14		0	0	0		0	0	0		
NRPs AAD (£)	£8,501											
A Roads (km)	0.278	0.579		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.612	0.812		0.000	0.000	0.128		0.000	0.000	0.210		
Roads AAD (£)	£11,633											
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A2.3: Lamlash to Kingscross Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	
RPs (no.)	0	0		0	0	0		0	0	0	
RPs AAD (£)	£0										
NRPs (no.)	0	0		0	0	0		0	0	0	
NRPs AAD (£)	£0										
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	<1.0m
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£0										
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Subcell		Policy unit	
A2		A2.1	
Clauchlands Point - Kingscross Point		Clauchlands Point to Lamlash	
Policy			
No active intervention			
Issue			
A localised section of minor road was found to be at risk of coastal flooding close to the Outdoor Centre. No assets have been identified to be at risk due to coastal erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✗ N/A	Perched beaches	✗ N/A
Revetments	✗ N/A	Cove	✗ N/A
Embankments	✗ N/A	Dune stabilisation	✗ N/A
Maintenance	✗ N/A	Managed realignment	✗ N/A
Groynes	✗ N/A	Nourishment	✗ N/A
Detached breakwaters	✗ N/A	Beach drain	✗ N/A
Headlands	✗ N/A	Additional Actions	✗
Workshop Conclusions			
The policy was agreed with no amendments.			
			
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Subcell		Policy unit	
A2		A2.2	
Clauchlands Point - Kingscross Point		Lamlash	
Policy		Hold the line	
Issue			
<p>Significant coastal flood risk to properties at Cuddy Dook and adjacent to the tennis courts. A significant section of minor road at Cuddy Dook is at risk of coastal flooding, as well as isolated sections of the A841. The A841 is maintained by NAC. Properties and the minor road at Cuddy Dook were also found to be at risk due to coastal erosion. SW assets run along the beach and are at risk of erosion. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection
Embankments	▲ Will not protect against erosion but may provide flooding protection	Dune stabilisation	✗ No naturally occurring dunes
Maintenance	✓ There are existing defences including seawalls, revetments and rock armour	Managed realignment	✗ Will not hold the existing line
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible in isolated areas
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✓ FRA commissioned by NAC. Wave overtopping study recommended.
Workshop Conclusions			
<p>The policy was agreed with no amendments. SW to manage risk to their assets. NAC has implemented revetment works at Lamlash Green. FRA commissioned by NAC. Wave overtopping study recommended.</p>			
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Subcell	Policy unit		
A2	A2.3		
Clauchlands Point - Kingscross Point	Lamlash to Kingscross Point		
Policy	No active intervention		
Issue			
No assets have been identified to be at risk due to coastal flooding or erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✗ N/A	Perched beaches	✗ N/A
Revetments	✗ N/A	Cove	✗ N/A
Embankments	✗ N/A	Dune stabilisation	✗ N/A
Maintenance	✗ N/A	Managed realignment	✗ N/A
Groynes	✗ N/A	Nourishment	✗ N/A
Detached breakwaters	✗ N/A	Beach drain	✗ N/A
Headlands	✗ N/A	Additional Actions	✗
Workshop Conclusions			
The policy was agreed with no amendments. No active intervention.			
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary (solid line) Sub-cell Boundary (dashed line) <p>© Crown copyright [and database rights] 2016 OS 100020765 EU. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>			

Sub-Cell A3: Kingscross Point - Drumadoon Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)		
RPs (no.)	19	34		0	0	0		0	0	0	
RPs AAD (£)	£60,206										
NRPs (no.)	4	7		0	0	0		0	0	0	
NRPs AAD (£)	£2,994										
A Roads (km)	0.960	1.269		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.311	0.470		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£32,014										
SSSIs (km ²)	0.221	0.254	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000	

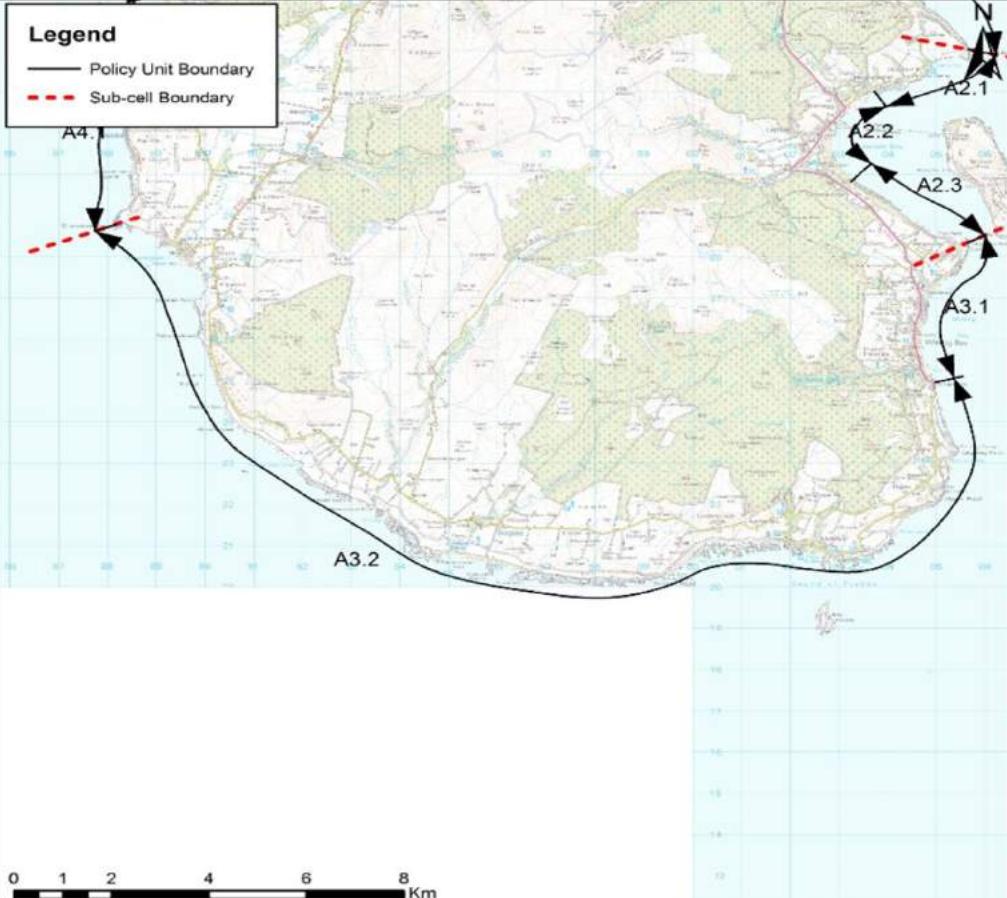
Policy Unit A3.1: Whiting Bay**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)		
RPs (no.)	18	23		0	0	0		0	0	0	
RPs AAD (£)	£59,420										
NRPs (no.)	4	6		0	0	0		0	0	0	
NRPs AAD (£)	£2,994										
A Roads (km)	0.929	1.184		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.021	0.023		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£28,416										
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

Policy Unit A3.2: Largymore to Drumadoon Point**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion							Wave	
	200yr	200yr CC	2050				2100				
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)		
RPs (no.)	1	11		0	0	0		0	0	0	
RPs AAD (£)	£786										
NRPs (no.)	0	1		0	0	0		0	0	0	
NRPs AAD (£)	£0										
A Roads (km)	0.031	0.086		0.000	0.000	0.000		0.000	0.000	0.000	
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	
Minor Roads (km)	0.290	0.447		0.000	0.000	0.000		0.000	0.000	0.000	
Roads AAD (£)	£3,598										
SSSIs (km ²)	0.221	0.254	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000	

Subcell	Policy unit			
A3	A3.1			
Kingscross Point - Drumadoon Point	Whiting Bay			
Policy				
Hold the line				
Issue				
<p>Significant coastal flood risk to properties at Montrose Terrace. The A841 road is also at significant risk of coastal flooding. The A841 is maintained by NAC. No assets have been identified to be at risk due to coastal erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>				
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?	
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding	
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding	
Embankments	✓ Will protect against flooding	Dune stabilisation	✗ No naturally occurring dunes	
Maintenance	✓ There are existing defences including seawalls, revetments and rock armour	Managed realignment	✗ Will not hold the existing line	
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible	
Detached breakwaters	✗ Will not protect against flooding	Beach drain	✗ Will not protect against flooding	
Headlands	✗ Will not protect against flooding	Additional Actions	✓ Wave overtopping study recommended	
Workshop Conclusions				
<p>It was noted that Whiting Bay and Districts Improvements Association have reported breaches in the existing sea wall. There may be drainage issues from fluvial and pluvial flooding which need to be considered when implementing SMP actions. Wave overtopping study recommended.</p>				
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary <p>A3.1 Whiting Bay</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EU. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>				

Subcell		Policy unit			
A3		A3.2			
Kingscross Point - Drumadoon Point		Largymore to Drumadoon Point			
Policy		Largymore to Drumadoon Point			
No active intervention		Issue			
<p>One RP was found to be at risk of coastal flooding at Kildonan. Localised sections of the A841 at Largymore and minor roads at Kildonan and Blackwaterfoot were also found to be at risk due to coastal flooding. No assets have been identified to be at risk due to coastal erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.</p>					
Potential Actions	Technically feasible?		Potential Actions		
Seawalls	✗	N/A	Perched beaches	✗	N/A
Revetments	✗	N/A	Cove	✗	N/A
Embankments	✗	N/A	Dune stabilisation	✗	N/A
Maintenance	✗	N/A	Managed realignment	✗	N/A
Groynes	✗	N/A	Nourishment	✗	N/A
Detached breakwaters	✗	N/A	Beach drain	✗	N/A
Headlands	✗	N/A	Additional Actions	✗	
Workshop Conclusions					
<p>The policy was agreed with no amendments. No active intervention. Road is elevated so should not be at risk.</p>					
 <p>Legend</p> <ul style="list-style-type: none"> Policy Unit Boundary (solid line) Sub-cell Boundary (dashed line) <p>A4.1</p> <p>A3.2</p> <p>A2.1</p> <p>A2.2</p> <p>A2.3</p> <p>A3.1</p> <p>N</p> <p>0 1 2 4 6 8 Km</p> <p>© Crown copyright [and database rights] 2016 OS 100020765 EUL. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-license, distribute or sell any of this data to third parties in any form.</p>					

Sub-Cell A4: Drumadoon Point - Lochranza**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	1	1		0	0	0		0	0	0		
RPs AAD (£)	£3,428											
NRPs (no.)	0	0		0	0	1		0	0	1		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	2.329	5.300		0.000	0.000	0.219		0.000	0.000	0.235		
Roads AAD (£)	£20,227											
SSSIs (km ²)	0.055	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A4.1: Drumadoon Point to Tormore**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	0	0		0	0	0		0	0	0		
RPs AAD (£)	£0											
NRPs (no.)	0	0		0	0	0		0	0	0		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£0											
SSSIs (km ²)	0.055	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit A4.2: Machrie Bay to Lochranza**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	1	1		0	0	0		0	0	0		
RPs AAD (£)	£3,428											
NRPs (no.)	0	0		0	0	1		0	0	1		
NRPs AAD (£)	£0											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
B Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	2.329	5.300		0.000	0.000	0.219		0.000	0.000	0.235		
Roads AAD (£)	£20,227											
SSSIs (km ²)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Subcell		Policy unit	
A4		A4.1	
Drumadoon Point - Lochranza		Drumadoon Point to Tormore	
Policy		Policy	
No active intervention		No active intervention	
Issue		Issue	
No assets have been identified to be at risk due to coastal flooding or erosion in this policy unit. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✗ N/A	Perched beaches	✗ N/A
Revetments	✗ N/A	Cove	✗ N/A
Embankments	✗ N/A	Dune stabilisation	✗ N/A
Maintenance	✗ N/A	Managed realignment	✗ N/A
Groynes	✗ N/A	Nourishment	✗ N/A
Detached breakwaters	✗ N/A	Beach drain	✗ N/A
Headlands	✗ N/A	Additional Actions	✗
Workshop Conclusions			
The policy was agreed with no amendments. No active intervention.			
Legend <ul style="list-style-type: none"> Policy Unit Boundary Sub-cell Boundary 			
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Subcell		Policy unit	
A4		A4.2	
Drumadoon Point - Lochranza		Machrie Bay to Lochranza	
Policy			
Hold the line			
Issue			
One RP at Dougarie was found to be at risk of coastal flooding. Significant sections of the A841 were also found to be at risk of coastal flooding at Machrie Bay, Dougarie, Pirnmill, Thunderay and Catacol Bay. One NRP and a section of the A841 were also found to be at risk due to coastal erosion. The A841 is maintained by NAC. The maximum wave height during a force 8 storm was found to be less than 1.0m.			
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?
Seawalls	✓ Will protect against both flooding and erosion	Perched beaches	▲ Will not protect against flooding but may provide erosion protection
Revetments	▲ Will not protect against flooding but may provide erosion protection	Cove	▲ Will not protect against flooding but may provide erosion protection
Embankments	▲ Will not protect against erosion but may provide flooding protection	Dune stabilisation	✓ Potentially feasible in isolated areas
Maintenance	✓ There are existing defences including seawalls and rock armour revetments	Managed realignment	▲ May consider diverting road
Groynes	▲ Will not protect against flooding but may provide erosion protection	Nourishment	✓ Potentially feasible in isolated areas
Detached breakwaters	▲ Will not protect against flooding but may provide erosion protection	Beach drain	▲ Will not protect against flooding but may provide erosion protection
Headlands	▲ Will not protect against flooding but may provide erosion protection	Additional Actions	✗
Workshop Conclusions			
Policy unit boundary changed to include northern section of road in hold the line policy. Preferred action would be maintenance of existing defences. Actions will be the responsibility of NAC.			

Sub-Cell Great Cumbrae**RISKS**

Receptor Risk	Coastal Flooding		Accretion / Erosion								Wave Max. Significant Wave Height (Hm0)	
	200yr	200yr CC	2050				2100					
			Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)	Accretion	Erosion	Erosion Influence (10m)	Erosion Vicinity (60m)		
RPs (no.)	4	75		0	0	0		0	0	0		
RPs AAD (£)	£4,121											
NRPs (no.)	5	10		0	0	0		0	0	0		
NRPs AAD (£)	£3,412											
A Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000	1.0-1.5m	
B Roads (km)	4.560	6.044		0.000	0.000	0.000		0.000	0.000	0.000		
Minor Roads (km)	0.000	0.000		0.000	0.000	0.000		0.000	0.000	0.000		
Roads AAD (£)	£73,143											
SSSIs (km ²)	0.048	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		

Policy Unit Great Cumbrae is the only policy unit within this sub-cell, therefore the policy unit risk values are equal to the sub-cell risk values.

Subcell		Policy unit			
Great Cumbrae		Great Cumbrae			
		Policy			
		Hold the line			
Issue					
Localised coastal flood risk to properties at Quayhead, Millport and at the Water Sports Centre Jetty. Roads to the North of the Island are also at risk due to coastal flooding. No assets have been identified to be at risk due to coastal erosion in this policy unit. The maximum wave height during a force 8 storm was found to be between 1.0-1.5m.					
Potential Actions	Technically feasible?	Potential Actions	Technically feasible?		
Seawalls	✓ Will protect against flooding	Perched beaches	✗ Will not protect against flooding		
Revetments	✗ Will not protect against flooding	Cove	✗ Will not protect against flooding		
Embankments	✓ Will protect against flooding	Dune stabilisation	✗ No naturally occurring dunes		
Maintenance	✓ There are existing defences including seawalls, revetments and rock armour	Managed realignment	▲ May consider diverting road		
Groynes	✗ Will not protect against flooding	Nourishment	✓ Potentially feasible		
Detached breakwaters	✗ Will not protect against flooding	Beach drain	✗ Will not protect against flooding		
Headlands	✗ Will not protect against flooding	Additional Actions	✗		
Workshop Conclusions					
NAC scheme proposed for Millport. Policy changed to hold the line for the road. Preferred action would be maintenance of existing defences. Actions will be the responsibility of the asset owner.					
					